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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,046	05/22/2001	John J. Light	10559-455001	8351

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EXAMINER

KE, PENG

ART UNIT PAPER NUMBER

2174

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/863,046

Applicant(s)

LIGHT ET AL.

Examiner

Peng Ke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This action is responsive to communications: Amendment, filed on 8/18/04.

This action is final.

Claims 1-24 are pending in this application. Claims 1, 9, and 17 are independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made. Claims 3-5, 8, 11-13, 16, 19-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda, US-6,346,956.

Claims 1- 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda, US-6,346,956 in view of Suzuki et al (hereinafter Suzuki), US-5,736,982.

As per claim 1, Matsuda teaches a method of selecting a target object in a virtual three-dimensional space, comprising:

identifying objects, including the target object, in the virtual three-dimensional space (Fig. 27; col. 4, lines 22-23).

Matsuda does not specifically teach the method of determining distances between the objects and a point in the virtual three-dimensional space or the prioritizing of the objects

based on distances and identities of the objects and then selecting the target object from among the objects based on priority.

However, Suzuki teaches the method of determining distances between the objects and a point in the virtual three-dimensional space or the prioritizing of the objects based on distances and identities of the objects and then selecting the target object from among the objects based on priority (*calculating distance between avatars*) (*grading based on five levels*) (*select means*) (col. 10, lines 15-40, col. 15, lines 32-48, col. 29, lines 6-10). It would have been obvious to combine the teaching of Matsuda with Suzuki's methods of determining distances and assigning priorities in order to create a method in which distance information between objects is maintained for tracking purposes and selection purposes based on selectivity/priority.

As per claim 2, Matsuda teaches the method wherein the objects comprise one or more of a link object (anchor) and non-link object (col. 5, lines 41-52).

As per claim 6, Matsuda teaches the method wherein identifying comprises distinguishing between a link object and a non-link object (anchor objects vs. non-anchor objects) (Fig. 35; col. 37, lines 57-67).

As per claim 7, Matsuda teaches the method further comprising: receiving coordinates based on a user input; and locating the objects in the virtual three-dimensional space based on the coordinates (*detailed coordinate value information*) (Fig. 32; col. 33, lines 39-56).

As per claims 9, 10, 14, 15, 17, 18, 22 and 23, they are the apparatus and article claims of claims 1, 2, 6 and 7 and rejected on the same basis.

As per claims 3 and 4, Matsuda does not teach the method as in claims 1 and 2 wherein prioritizing comprises assigning a higher priority to the non-link objects than to the link objects if the distances meet a predetermined criterion or assigning higher priority to the link object if the link object is closer to the point than a non-link object by a predetermined distance. However, official notice is taken that prioritizing objects is well known in the art, therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to give higher priority to the non-link objects because the link objects do not represent actual data, as non-link objects do and give higher priority to link objects when they are easier to access, based on the predetermined distance factor.

As per claim 5, Matsuda does not teach the method as in claim 1, wherein the predetermined distance comprises 0x1000000. However, official notice is taken that fixing predetermined distances of objects is well known in the art, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to fix the distance between linked and non-linked objects in order to for objects to be prioritized and selected.

As per claim 8, Matsuda does not specifically teach the method as in claim 1, wherein determining the distances comprises obtaining differences between coordinates in the virtual three-dimensional space for the objects and coordinates in the virtual three-dimensional space for the point. However, official notice is taken that calculating distance based on XYZ axis coordinate points is well known in the art, therefore it would have been obvious to one ordinary skill in the art at the time of the invention to use coordinate calculation as the method to determine the distance between the objects in the three-dimensional space.

As per claims 11-13, 16, 19-21 and 24, they are the apparatus and article claims of claims 1-8 and are rejected on the same basis.

Response to Argument

Applicant's arguments filed on 12/12/04 have been fully considered but they are not persuasive.

Applicant's arguments focused on the following points.

1) There is no teaching either from Matsuda or Suzuki to actually suggest combination of the two references.

1) In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the

time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Suzuki provided a reason to combine the two references. (col. 2, lines 20-39)

2) Suzuki fails to teach the method of determining distance between the objects and a point in virtual three-dimensional space or the prioritization of the object based on distances and identities of the object and then selecting the target object from among the object based on priority.

2) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., prioritization and selecting the target) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Suzuki teaches determining the speech quality of the other avatars base on their distance. (col. 2, lines 24-30). Examiner interprets the speech quality to be prioritization of selected target object.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peng Ke whose telephone number is (571) 272-4062. The examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristine Kincaid

KRISTINE KINCAID

SUPPLEMENTARY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Peng-Ke

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